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CS496

Homework 2

*I pledge my honor that I have abided by the Stevens Honor System.*

1. Inductive definition of a DTree
2. n is a real number
3. leaf(n) exists in DTree(N)
4. m is a symbol
5. node(m, l, r) exists in DTree(N) such that m is a symbol and l and r are either nodes or leaves.
   1. node(‘x, node(‘y, leaf(7), leaf(8)), node(‘z, node(‘w, leaf(1), leaf(2)), leaf(3)))
   2. node(‘x, leaf(1), node(‘y, leaf(2), leaf(3)))
6. For each example, a node exists containing a symbol m, and a l and r which are of either the form leaf(n) or node(m, l, r). As such, they are valid DTrees.